Case Report

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Strangulated transomental hernia: case report and literature review

Abstract

Internal hernias are a rare cause of acute intestinal obstruction and are defined as an incarceration of the small bowel through a natural or abnormal intra-abdominal orifice. Transomental internal hernias represent 1 to 4% of all reported internal hernias and are generally observed after the age of 50years old. Imaging is still of interest in the diagnosis of obstruction, but only 8% of transomental hernias would be diagnosed pre-operatively. Their surgical management is done urgently, either by laparotomy or by laparoscopy. We report a case of a patient with an occlusive syndrome and whose diagnosis of a strangulated transomental hernia was per operative.

Keywords: internal hernia, bowel obstruction, surgery, case report

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Introduction

Internal hernias are a rare cause of acute bowel obstruction and account for only 0.5 to 1% of all acute bowel obstructions.[1] Two conditions define an abdominal internal hernia: the absence of previous abdominal surgery to eliminate a possible iatrogenic hernia postoperatively and the displacement of one or more intra-abdominal viscera through a normal or abnormal intra-peritoneal orifice. Transomental hernias represent 1 to 4 % of all reported internal hernias and are generally observed after 50years old.[3] They are generally revealed in the presence of a non-specific occlusive syndrome, imaging remains of interest in the diagnosis of occlusion, but only 8% of transomental hernias are diagnosed preoperatively.[4] We report the case of a patient with an occlusive syndrome whose diagnosis of a strangulated transomental hernia was per operative.

Patient and observation

This is a 71year old femal patient hypertensive on a calcium channel blocker 5mg/day who presented 3days before her admission an occlusive syndrome consisting of cessation of feces and gas, vomiting and peri-ombilical abdominal pain. The abdominal examination revealed a non-scarred abdomen, abdominal meteorism, diffuse abdominal tenderness and diffuse tympany. The hernial orifices were free and the rectal exam was normal. A plain erect abdominal X-ray revealed multiple air fluid levels, which were suggestive of intestinal obstruction (Figure 1).

Figure 1 A plain erect abdominal X-ray revealed multiple air fluid levels.

The abdominal CT scan showed a distension of the jejunal loops, measured at 34mm of maximum calibre, with multiple air fluid levels, occurring upstream of a transitional level at the level of the right flank realizing the bird's beak aspect with a discrete nodular infiltration of the peritoneal fat and a peritoneal effusion of medium abundance (Figure 2).

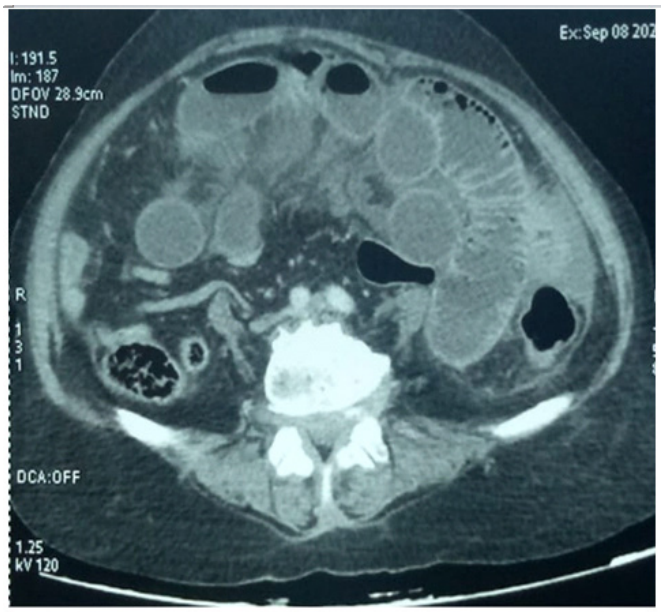

Figure 2 Abdominal CT scan showing small bowel distension upstream of a bird's beak aspect in the right flank.

Biological investigations did not reveal any abnormalities in basal values. The patient underwent a disincarceration of a strangulated gallows loop in a transomental breach with closure of the epiploic breach. Surgical exploration showed the presence of a loop f the small intestine incarcerated in an epiploic breach 1.5 m from the duodenojejunal flexure suffering but viable (Figure 3) associated with a medium-sized peritoneal effusion made up of suffering fluid. The postoperative follow-up was simple and the patient was discharged at 2 days postoperatively after having resumed her transit.

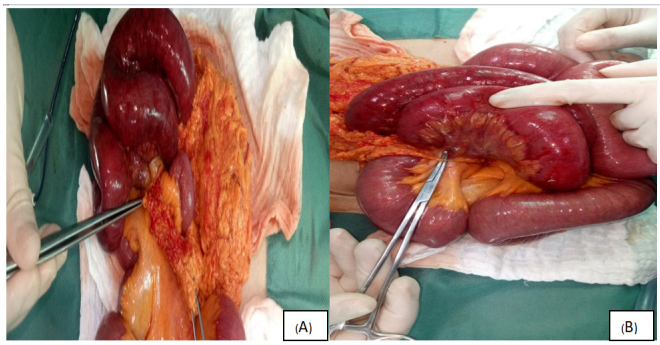

Figure 3 Intraoperative appearance of a transomental hernia (A,B).

Discussion

Internal hernias are defined as an exit of the intestine through a natural or abnormal intra-abdominal orifice, which represent 0.5 to 1% of all acute intestinal obstructions. Autopsy statistics show a frequency of 0.2 to 2% of internal hernias.[5] Depending on the nature of the orifice through which the viscera is herniated, a distinction is made between: internal hernias through a natural orifice, internal hernias through an abnormal orifice, retroperitoneal hernias and subperitoneal hernias[1] Two conditions define an internal abdominal hernia: The absence of previous abdominal surgery to rule out a possible iatrogenic postoperative hernia and displacement of an intra-abdominal viscera(s) through an intra-peritoneal orifice.[6] Transomental hernias concern both the large omentum and the small omentum, and represent 1 to 4 % of all internal hernias. They are most often revealed in adulthood with a sex ratio close to 1.[4] They are due to senile atrophy of the greater omentum in elderly patients.[7] When the hernia is located at the level of the epiploic apron, it is most often located on the right side and the small intestine will then become incarcerated from back to front, on the other hand if the defect is located at the level of the gastrocolonic ligament the small intestine will then penetrate into the omental bursa from front to back.[8] The clinical presentation corresponds to an acute occlusive syndrome, generally non-specific, which is the case in our patient.The abdominal CT scan with contrast can confirm the diagnosis preoperatively by showing the passage of mesenteric vessels through the epiploic defect, except that only 8% of transomental hernias would be diagnosed preoperatively.[9] The laparoscopic approach has a diagnostic and therapeutic purpose, in cases where the defect is anterior and easy to identify and can be repaired without any particular technical difficulty, but median laparotomy should be preferred as a first-line procedure in the event of a intolerable occlusive syndrome[10] bowel reduction can usually be done by simple traction, but this can be made difficult by acquired adhesions, hence the interest in enlarging the defect. In case of intestinal necrosis, resection of the necrotic segment is necessary.[11] Preventive treatment consists of simple closure of breach by an interrupted stitches of absorbable or non-absorbable sutures, followed by anatomical repositioning of the intestine and the omentum .Epiploic resection is necessary when the apron appears to be overly reworked.[12]

Conclusion

Internal hernias of the abdomen are rare, but must be evoked in the presence of any acute intestinal obstruction in a patient who has never been operated on. Often revealed by an intestinal obstruction and confirmed during an exploratory laparotomy, the wide indication of abdominal CT scan in occlusive syndromes has increasingly allowed a preoperative diagnosis. Their surgical management is done as an emergency, either by laparotomy or by laparoscopy

Authors' contributions

This work was carried out in collaboration among all authors. All authors contributed to the

conduct of this work. They also declare that they have read and approved the final version of

the manuscript.

Consent

According to the international or academic standard, patient consent was collected and

retained by the authors.

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None.

Conflicts of interest

The authors declare that there are no conflicts of interest.

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